REMARKS

The Office Action dated June 6, 2007, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-27 are currently pending in this application. Claims 1-27 are respectfully submitted for consideration.

In the Office Action, at page 4, claims 1, 3-11, 13-19 and 21-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Basso et al. (U.S. Patent Application No. 2003/0231640, hereinafter "Basso") in view of Edmondson (U.S. Patent Application No. 2004/0117613, hereinafter "Edmondson"). The Office Action took the position that Basso discloses all of the elements of the claims, with the exception of "defining a customer policy and device-specific commands, wherein each policy target comprise a network device that includes an interface assigned a role name associated with the customer policy." The Office Action then cited Edmondson as alledgedly disclosing this limitation of the claims. The rejection is respectfully traversed for the following reasons.

Independent claim 1, upon which claim 2-4 are dependent, recites a system for configuring differentiated services (Diffserv) over multi-protocol label switching (MPLS) in a network that includes MPLS tunnels. The system includes a policy server that is arranged to configure a customer policy and a mapping policy that maps between an experimental (EXP) field and a unique per-hop-behavior (PHB), and to deploy the mapping policy and the customer policy to interfaces of devices of the network that

correspond to the tunnels, wherein the interfaces and the customer policy are associated with a same role name.

Independent claim 5, upon which claims 6-10 are dependent, recites an apparatus for configuring Diffserv over MPLS in a network. The apparatus includes a memory. The apparatus also includes a service application residing on the memory, wherein the service application is arranged to configure a customer policy that comprises a tunnel group and tunneling mode, the customer policy being arranged to have customer traffic mapped into MPLS tunnels, and wherein the service application is arranged to configure an EXP-to-PHB mapping policy that is arranged to map EXP fields to PHB. The apparatus further includes a central processing facility that is arranged to translate the customer policy and mapping policy into device-neutral policy parameters. The apparatus additionally includes a policy consumer that is arranged to translate the device-neutral policy parameters into device-specific commands, and that is further arranged to deploy the device-specific commands to policy targets, such that the customer policy and mapping policy are implemented across at least a portion of the network, and wherein the policy targets comprise network devices that each include an interface associated with a role name that is also associated with the customer policy.

Independent claim 11, upon which claims 12 and 13 are dependent, recites an apparatus for configuring Diffserv over MPLS in a network. The apparatus includes a means for defining a mapping policy that maps between an EXP field and a unique PHB. The apparatus also includes a means for maintaining a customer policy. The apparatus

further includes a means for translating the mapping policy and customer policy into device-specific commands. The apparatus additionally includes a means for deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface that is associated with a role name that is also associated with the customer policy.

Independent claim 14, upon which claims 15 and 20 are dependent, recites an article that comprises a storage medium and the storage medium having instructions stored thereon. The instructions result in defining a mapping policy configured to map between an EXP field and a unique PHB. The instructions also result in defining a customer policy that is configured to govern the treatment of individual customer traffic. The instructions further result in defining a network policy that is configured to define the Diffserv treatment of aggregated traffic. The instructions additionally result in translating the mapping policy, the network policy and the customer policy into device-specific commands. The instructions also result in deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy.

Independent claim 21, upon which claims 22-27 are dependent, recites to a method for configuring Diffserv over MPLS in a network. The method includes defining a mapping policy configured to map between an EXP field and a unique PHB. The method also includes defining a customer policy that is configured to govern the treatment of individual customer traffic. The method further includes defining a network policy that is

configured to define the Diffserv treatment of aggregated traffic; translating the mapping policy, the network policy and the customer policy into device-specific commands. The method additionally includes deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy.

Certain embodiments of the present invention advantageously allow network devices to be configured so that traffic in a Diffserv over MPLS network can be controlled in accordance with mapping policy, a customer policy and a network policy.

Another advantage of certain embodiments of the present invention is that a policy server is arranged to configure a mapping policy and to deploy the mapping policy to interfaces of devices of the network that correspond to MPLS tunnels. Deployment of a mapping policy that maps between an experimental field and a unique per-hop-behavior, and to deploy the mapping policy to interfaces of devices can provide the advantages over the prior art.

As will be discussed below, Basso and Edmondson, whether considered alone or in combination, fail to disclose or suggest all of the elements of the claims, and therefore fail to provide the critical and unobvious advantages discussed above.

Basso generally describes a method for translating a type of service field of one protocol into multiple protocols. The method may include the step of an ingress router in a Diffserv over MPLS network receiving a packet, for example, Internet Protocol (IP) packet, from an external network. The ingress router may identify the type of quality of

service, for example, forward IP packet using assured forwarding, forward IP packet using expedited forwarding, in the received packet. In one embodiment, the ingress router may identify the type of quality of service by reading the type of service field in the received packet. See Abstract of Basso.

In Basso, the type of quality of service, for example, the type of service, to be performed on an IP packet in a network implementing the Diffserv protocol may be determined by the value in a Diffserv Code Point (DSCP) field located in the type of service field in the header of the IP packet. See column 3, paragraph [0029] of Basso.

The program of Basso that translates a type of service field of one protocol into multiple protocols as described in FIG. 3, may reside in disk unit 220 or in application 250. It is further noted that disk unit 220 for the edge routers 121A, 121E, in network 130 may be configured to store a table configured to store PHB values. See column 4, paragraph [0032] of Basso.

Edmondson generally describes mapping applications that generate packets to a QoS policy on a packet routed network, such as an IP network, and automatically generating and/or changing the configuration of network elements, such as routers, to treat packets from the application according to the QoS policy. The high-level descriptions of applications and quality of service (QoS) treatment, for example, are automatically translated into low-level QoS configurations for routers. The application profiles specifying how traffic for those applications should be treated can be specified by those without detailed technical knowledge and QoS configurations automatically

created for download onto customer premises equipment and, if necessary, also to access and backbone networks. See abstract of Edmondson.

Applicants respectfully submit that the combination of Basso and Edmondson fails to teach or suggest all of the elements of the presently pending claims. For example, Basso and Edmondson fails to disclose or suggest, at least, "translating the mapping policy, the network policy and the customer policy into device-specific commands, and deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy" as recited in independent claim 21.

The Office Action, on page 4, alleged that Basso discloses "translating the mapping policy, the network policy and the customer policy into device-specific commands, and deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy." Applicants respectfully disagree. As described above, Basso merely discloses a program that translates a type of service field of one protocol into multiple protocols as shown in Fig. 3 of Basso. Basso's program might be considered to translate a type of service field. However, the program does not translate the mapping policy, the network policy and the customer policy into **device-specific commands** as in the present invention. (Emphasis Added).

In the response to arguments section, on page 2, the Office Action took the position that Basso fails to teach defining a customer policy and device-specific

commands, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy. The Office Action, however, asserted that Edmondson teaches assigning role name to router interfaces associated with specific customer policies, wherein the customer policies are translated in QoS command-line interface commands acceptable by the routers. Applicants respectfully disagree with the Office Action's position.

Claim 21 recites a feature of defining a customer policy that is configured to govern the treatment of individual customer traffic. However, Edmondson does not disclose or suggest such defining a customer policy feature. Instead, the method of Edmondson merely discloses a mapping application that generates packets to a QoS policy on a packet routed network. See Abstract of Edmondson. There is no teaching or suggestion in Edmondson of any features such as, "**defining a customer policy** that is configured to govern the treatment of individual customer traffic." (Emphasis Added). Therefore, Edmondson does not teach or suggest, "defining a customer policy that is configured to govern the treatment of individual customer traffic," as recited in independent claim 21 and similarly recited in claim 14. Basso, as acknowledged by the Office Action, also fails to disclose or suggest these elements of the claims.

In response to arguments section, on page 3, the Office Action also took the position that Basso teaches deploying the device-specific commands to policy targets. Applicants respectfully disagree with the Office Action's position. Claim 21 recites a step of deploying the device-specific commands to policy targets, wherein each policy

target comprises a network device that includes an interface assigned a role name associated with the customer policy. Basso does not disclose or suggest such deploying feature. Rather, Basso merely teaches a router that is configured to store a table for translation of values. See Page 4, paragraph [0032] of Basso. Therefore, Basso fails to teach or suggest, at least, "deploying the device-specific commands to policy targets, wherein each policy target comprise a network device that includes an interface assigned a role name associated with the customer policy," as recited in claim 21 and similarly recited in claim 1.

Furthermore, Applicants respectfully submit that the combination of Basso and Edmondson fails to disclose or suggest, at least, "a policy server that is arranged to configure a customer policy and a mapping policy that maps between an experimental field and a unique per-hop-behavior, and to deploy the mapping policy and the customer policy to interfaces of devices of the network that correspond to the tunnels, wherein the interfaces and the customer policy are associated with a same role name," as recited in claim 1 and similarly recited in claims 5, 11, 14, and 21. For example, Basso and Edmondson do not teach or suggest a policy server that is configured to deploy the mapping policy and the customer policy to interfaces of devices of the network that correspond to the tunnels, wherein the interfaces and the customer policy are associated with a same role name as in the present application.

There is no teaching or suggestion to motivate an ordinary skill in the art to combine Basso and Edmondson to lead to the system of claim 1, or how these references could be combined to give a system with the advantages described above.

Furthermore, there is no teaching or suggestion in Basso to motivate an ordinary skill in the art to consult Edmondson since Edmondson does not even teach or suggest configuring Diffserv over MPLS in a network.

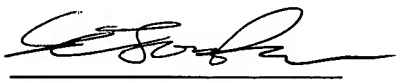
For the reasons above, Applicants respectfully assert that the combination of Basso and Edmondson fails to teach or suggest all of the elements of independent claims 1, 5, 11, 14, and 21 and dependent claims 2-10, 13, 15-19 and 22-27.

Applicants respectfully submit that the cited prior art fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unobvious, and these distinctions show that a prima facie case of obviousness has not been established. It is therefore respectfully requested that all of claims 1-27 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Sejoon Ahn
Registration No. 58,959

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

SA:ksh